Choice of Chargers

MT1000 Series "HANDIE-TALKIE" FM Radio

Performance Specifications
All Specifications Are Per EIA RS 316B Procedures

Model Series:	H43GCU, H43GCJ/H33GCU, H33GCJ	H44GCU, H44GCJ/H34GCU, H34GCJ	H41GCU, H41GCJ
Frequency:	VHF	UHF	Low Band
Bandsplit (MHz):	(LO) 136 - 150.8; (MID) 146 - 174	(LO) 403 - 433; (MID) 438 - 470; (HI) 470 - 500 or 488 - 512	(LO) 30 - 36; (MID) 36 - 42; (HI) 42 - 50
Power Supply:	One rechargeable nickel cadmium battery		
Dimensions: Less Antenna, Knobs & Battery H x W x D in Inches	3.90 x 2.71 x 1.54" (99 x 67 x 35 mm)		

Battery Height/Wt:	**Height:**	**Weight:**	**Height:**	**Weight:**	**Height:**	**Weight:**
Ni-Cd Batteries:		w/ Radio		w/ Radio		w/ Radio
Medium Capacity:	2.45" (62 mm)	612 g/21.6 oz.	2.45" (62 mm)	612 g/21.6 oz.	2.45" (62 mm)	612 g/21.6 oz.
High Capacity:	3.36" (85 mm)	684 g/24.1 oz.	3.36" (35 mm)	684 g/24.1 oz.	3.36" (35 mm)	684 g/24.1 oz.
***Battery Life (Hrs):**	**High Power**	**Low Power**	**High Power**	**Low Power**	**High Power**	**Low Power**
Ni-Cd Batteries:						
Medium Capacity:	**5 hours**	**8 hours**	**5 hours**	**8 hours**	**5 hours**	**5 hours**
High Capcity:	**8 hours**	**14 hours**	**8 hours**	**13 hours**	**8 hours**	**8 hours**
Sealing:	O-ring design to withstand rain testing per Mil Std. 810C/D					
Shock & Vibration:	Impact resistant polycarbonate housing exceeding EIA RS-316B					
Dust & Humidity:	Weather resistant housing exceeding EIA RS-316B					

***5-5-90 Duty Cycle**

Transmitter:	**VHF**	**UHF**	**Low Band**
Frequency Separation (MHz):	Full Bandsplit	15	1MHz
RF Output (W):	2 or 5	2 or 4 (HI 4 only)	6
Frequency Stability (−30°C to +60°C; 25°C ref):	± .0005%	± .0005%	± .0005%
Modulation:	20KOF3E	20KOF3E	20KOF3E
Spurious & Harmonics:	−60 dB	−53 dB	−51 dB
FM Noise: (Companion Receiver Method)	−45 dB	−45 dB	−45 dB
Audio Response: (from a 6dB/octave pre-emphasis; 300 to 3000 Hz)	+1, −3 dB	+1, −3 dB	+1, −3 dB
Audio Distortion: (@ 1000 Hz, 60% rated maximum deviation)	3%	3%	3%
FCC Designation:			
Low Power	AZ489FT3716	AZ489FT4717	---
High Power	AZ489FT3717	AZ489FT4718	AZ489FT1622

***Constrained by Sub-Band Limitations.**

Receiver:	**VHF**	**UHF**	**Low Band**
Frequency Separation (MHz):	Full Bandsplit	8	1
Channel Spacing:	30 kHz (25 kHz Int.)	25 kHz	20 kHz
Modulation Acceptance:	± 7.5 kHz	± 7.5 kHz	± 7.5 kHz
Sensitivity:			
20 dB Quieting	.35 uV	.50 uV	.35 uV
12 dB Sinad	.25 uV	.35 uV	.25 uV
Squelch	.25 uV	.35 uV	.25 uV
Selectivity: (EIA Sinad)	−70 dB (−68 dB @ 25 kHz)	−70 dB	−70 dB
Intermodulation:	−70 dB (−68 dB @ 25 kHz)	−70 dB	−70 dB
Frequency Stability (−30°C to +60°C; 25°C ref)	± .0005%	± .0005%	± .0005%
Spur Rejection:			
1/2 IF (VHF HI only)	−65 dB	---	---
Others	−70 dB	−70 dB	−70 dB
Image Rejection:	−70 dB	−70 dB	−70 dB
Audio Output: (@ less than 5% distortion)	500 mW	500 mW	500 mW
Useable Bandwidth (LO):	6KHz min.	6KHz min.	5KHz min.
FCC Designation:			
Low Power	AZ489FT3716	AZ489FT4717	---
High Power	AZ489FT3717	AZ489FT4718	AZ489FT1622

Applicable MIL-STD.	**810C Methods/Procedures**		**810D Methods/Procedures**	
Low Pressure	Method 500.1	Procedure 1	Method 500.2	Procedure 1
High Temperature	Method 501.1	Procedure 1, 2	Method 501.2	Procedure 1 & 2
Low Temperature	Method 502.1	Procedure 1	Method 502.2	Procedure 1 & 2
Temperature Shock	Method 503.1	Procedure 1	Method 503.2	Procedure 1
Solar Radiation	Method 505.1	Procedure 1	Method 505.2	Procedure 1
Rain	Method 506.1	Procedure 2	Method 506.2	Procedure 2
Humidity	Method 507.1	Procedure 2	Method 507.2	Procedure 2
Salt Fog	Method 509.1	Procedure 1	Method 509.2	Procedure 1
Dust	Method 510.1	Procedure 1	Method 510.2	Procedure 1
Vibration	Method 514.2	Procedure 8, 10	Method 514.3	Procedure 1
Shock	Method 516.2	Procedure 1, 2, 5	Method 516.3	Procedure 1, 4

MT1000 also meets MIL Spec 810E.

Support Services
Wherever Motorola sells, our product is backed by service. In the U.S., we

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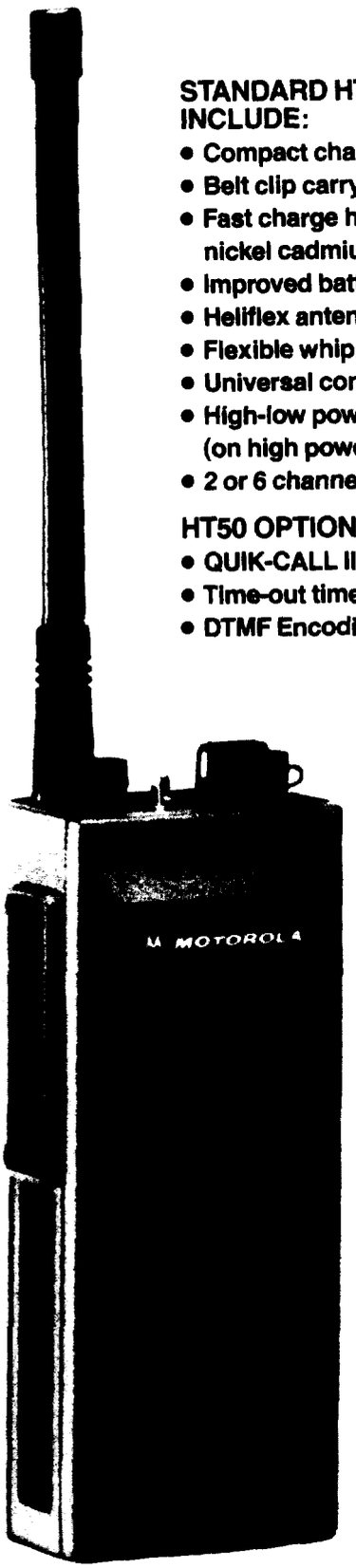
MOTOROLA INC.
1301 E. Algonquin Rd., Schaumburg, Illinois 60196
Call toll free 1-800-247-2346

MOTOROLA

HT50

Synthesized Portable Radio

VHF 1 or 5 Watts
UHF 1 or 4 Watts



STANDARD HT50 FEATURES INCLUDE:

- Compact charger
- Belt clip carry holder
- Fast charge high capacity nickel cadmium battery
- Improved battery life
- Heliflex antenna (VHF)
- Flexible whip antenna (UHF)
- Universal connector
- High-low power switch (on high power models)
- 2 or 6 channel availability

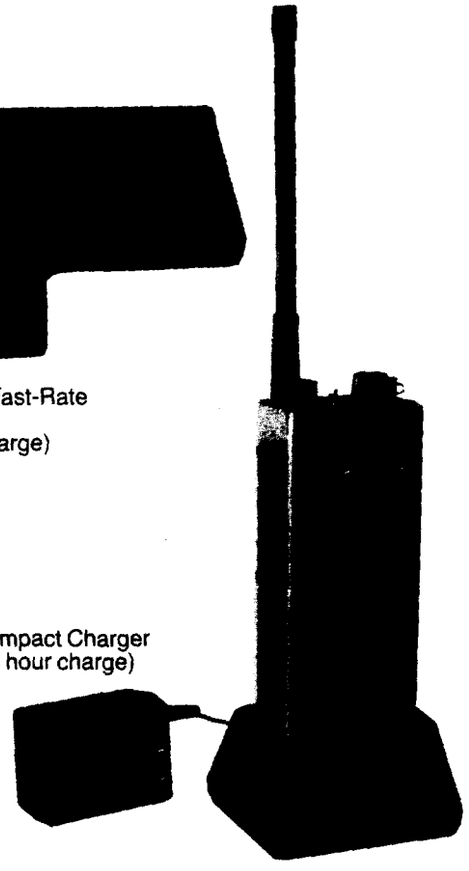
HT50 OPTIONS

- QUIK-CALL II decode
- Time-out timer
- DTMF Encoding keypad option

Accessories

Chargers

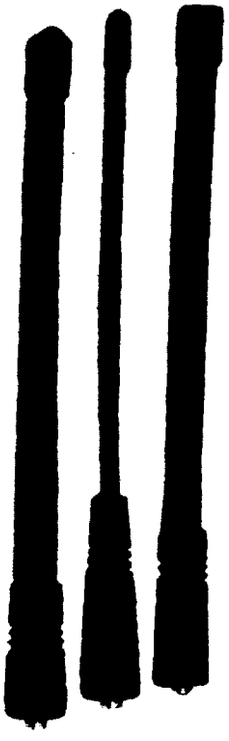
- Six-Unit, Fast-Rate Charger (2 hour charge)



- Compact Charger (18 hour charge)

- Fast-Rate, Desk Top Charger (2 hour charge)

Antennas



	UHF	
ow Power	High Power	Low Power
H23BEU	H44BEU	H24BEU
	403-430, 450-470 MHz	
	2 or 6*	
	6.3" × 2.6" × 1.8" 158mm × 65mm × 45mm	
	24 oz. 672 g	
One Rechargeable Nickel Cadmium Battery		
11 hours	8 hours	11 hours
Z489FT3711	AZ489FT4711	AZ489FT4712

Receiver

	VHF	UHF
Channel Spacing:	30 kHz	25 kHz
Sensitivity 12 dB SINAD:	0.25μV	0.35μV
Selectivity EIA SINAD:	−60 dB	
Intermodulation EIA SINAD:	−60 dB	
Spurious & Image Rejection:	−60 dB	
Frequency Stability −30° to +60°C 25° Ref.:	±0.0005%	
Modulation Acceptance:	>±7 kHz	
Maximum Frequency Separation:	6 MHz	8 MHz
Audio Output (@ Less Than 10% Distortion):	500 mW	
Sensitivity 20 dB Quieting:	0.35μV	0.50μV
Useable Bandwidth:	±5 kHz	

MOTOROLA

1301 E. Algonquin Rd., Schaumburg, Illinois 60196
Call Toll-Free 1-800-247-2346

Malcolm Baldrige National Quality Award

R3-4-115 D

HT50 Synthesized Portable Radio

General Specifications

	VHF		UHF	
	High Power	Low Power	High Power	Low Power
Model Series:	H43BEU	H23BEU	H44BEU	H24BEU
Frequency:	136-174 MHz		403-430, 450-470 MHz	
Channel Capability:	2 or 6*			
Dimensions (H x W x D):	6.3" × 2.6" × 1.8" 158mm × 65mm × 45mm			
Weight:	24 oz. 672 g			
Power Supply:	One Rechargeable Nickel Cadmium Battery			
Average Battery Life @ 5-5-90 Duty Cycle:	8 hours	11 hours	8 hours	11 hours
FCC Designation:	AZ489FT3710	AZ489FT3711	AZ489FT4711	AZ489FT4712

Transmitter

	VHF		UHF	
	High Power	Low Power	High Power	Low Power
RF Power Output NiCd Batteries @ 9.6V:	5W	1W	4W	1W
Spurious & Harmonic Emissions:	−50 dB			
Frequency Stability −30° to +60°C 25°C Ref.:	±0.0005%			
Modulation:	16F3			
Maximum Frequency Separation:	6 MHz		8 MHz	
Audio Distortion: (@ 1000 Hz dev)	5%			
FM Noise:	−40 dB			
Audio Response: (from a 6 dB/octave pre-emphasis 300-3000 Hz)	+1, −3 dB			

*6 Channel capable radios available only in High Power models.

Receiver

	VHF	UHF
Channel Spacing:	30 kHz	25 kHz
Sensitivity 12 dB SINAD:	0.25μV	0.35μV
Selectivity EIA SINAD:	−60 dB	
Intermodulation EIA SINAD:	−60 dB	
Spurious & Image Rejection:	−60 dB	
Frequency Stability −30° to +60°C 25° Ref.:	±0.0005%	
Modulation Acceptance:	>±7 kHz	
Maximum Frequency Separation:	6 MHz	8 MHz
Audio Output (@ Less Than 10% Distortion):	500 mW	
Sensitivity 20 dB Quieting:	0.35μV	0.50μV
Useable Bandwidth:	±5 kHz	

MOTOROLA Communications

Support Services
Wherever Motorola sells, our product is backed by service. In the U.S., we have 900 authorized or company-owned centers. In addition, our products are serviced throughout the world by a wide network of company or authorized independent distributor service organizations.

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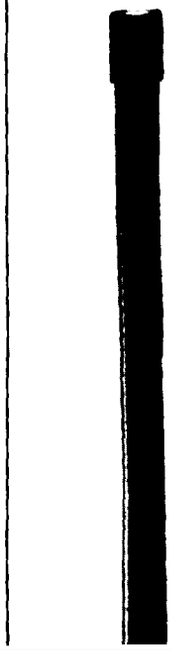
Accessories



STANDARD HT50 FEATURES INCLUDE:

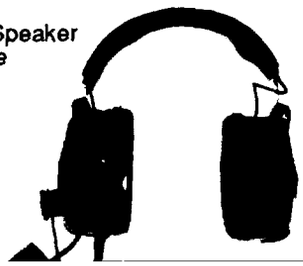
- **Compact charger**
- **Belt clip carry holder**
- **Fast charge high capacity nickel cadmium battery**
- **Improved battery life**
- **Heliflex antenna (VHF)**
- **Flexible whip antenna (UHF)**
- **Universal connector**
- **High-low power switch (on high power models)**
- **2 or 6 channel availability**

HT50 OPTIONS

- **QUIK-CALL II decode**
- **Time-out timer**

- Remote Speaker Microphone

- Head Set Speaker Microphone

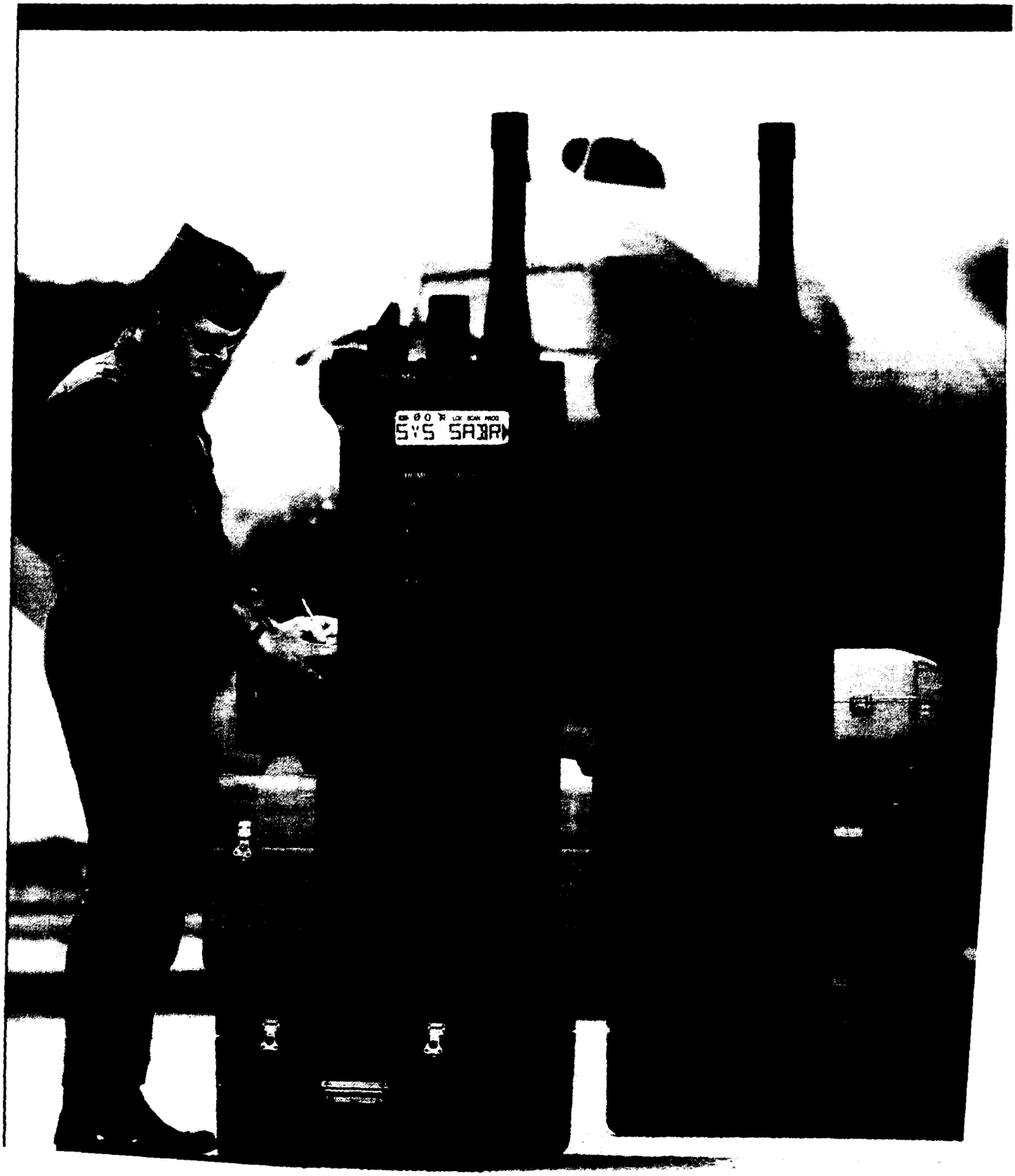


Eq. Cat	Sec.	Item
R3	4	136B

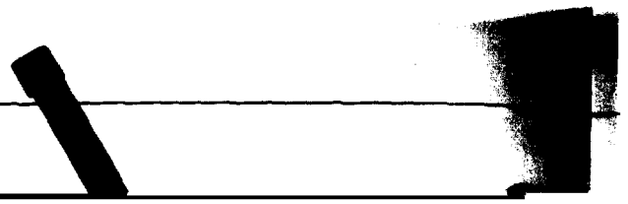
MOTOROLA

SYSTEMS SABER

UHF (Trunked/Conventional)
VHF (Trunked/Conventional)
Portable Radio
For SECURENET or SMARTNET II Systems



SYSTEMS SABER III Portable Radio



Features:

- 225 Modes (Trunked Talkgroups/

Advanced SECURENET Features:
(Conventional Systems Only)

SYSTEMS SABER Portable Radio

Motorola now offers you its most versatile and sophisticated two-way systems portable, the **SYSTEMS SABER** Portable. The **SYSTEMS SABER** gives you the same small, lightweight, high performing specifications and totally field programmable two-way portable, that you've come to expect from **SABER** products. All this and dual mode (trunked and conventional) capability too!

The **SYSTEMS SABER III** puts numerous system capabilities at your fingertips with a full 3 x 5 keypad. In conjunction with the channel selector switch, on top of the radio, you can access up to 225 modes with up to 16 zones (16 modes only on **SYSTEMS SABER I**). The versatility of the **SYSTEMS SABER** radio gives you the ability to operate in both trunked and conventional (Dual Mode) systems. The SECURENET and SMARTNET II capabilities makes it possible to operate in any of Motorola's secure systems. **SYSTEMS SABER** offers you the quality and high reliability that you've come to expect

SMARTNET Features/ADVANTAGES continued

Selective Radio Inhibit - The dispatcher can disable any SYSTEMS SABER radio (i.e., the radio seems inoperable). Disabling the portable will prevent the unit from being operated.

If a radio is lost or stolen, this will prevent unauthorized monitoring.

Systems Search and Lock (SYSTEMS SABER III only) - Allows the SYSTEMS SABER III radio to search for the best system available, trunked or conventional. If reception is noisy, you can force the radio to look for a better system. Should the radio lose its home system, it will periodically search to find it again.

Extends geographic coverage, particularly when you're between trunking sites or in rural areas. Roaming among trunked and conventional systems is automatic, requiring no operator activity.

Dynamic Regrouping - This feature allows a dispatcher or shift supervisor to change the talkgroup assignments of any SYSTEMS SABER portable or group of portable radios.

A radio can be reconfigured over the air to meet any situation; i.e., tactical operations, shift changes or natural disasters.

Automatic Multiple Site Selection (AMSS) - Communications coverage is enhanced by the portable's ability to operate beyond the reach of a single repeater site. Your SYSTEMS SABER portable automatically tries to find the best site available. You can, however, force it to look for another site.

Systems may be designed that include operation over large geographic locations. AMSS provides access to the central communications network. Participation in the expanded network is automatic and requires no additional activity by the portable operator.

Emergency Alarm & Call - Pressing the Emergency button located on top of the radio sends an Emergency Alarm to the dispatcher and/or allows for an Emergency Call to be made. The Emergency Alarm is accompanied by the radio's identification code to alert the dispatcher of the initiating radio. Emergency Call allows the portable to have first priority access to a voice channel, even when the system is busy.

Emergency Alarm - Pressing the Emergency button located on top of the radio sends an Emergency Alarm and the radio's identification code to alert the dispatcher of the initiating radio.

Status/Message Encode (SYSTEMS SABER III only) - Status transmissions are used to inform the dispatcher of the present state of the radio user (i.e., "ENROUTE" or "AT SITE"). Message transmissions indicate a temporary condition and/or a response to a dispatcher query (i.e. "PLS CALL" or "10-4") saving air time.

Status/Message allows the radio user to quickly inform the dispatcher of current operating conditions without interrupting normal communications. That means more efficient task coordination for your system users.

STAT-ALERT (Conventional) Features/ADVANTAGES

PTT ID - With each depression of the Push-to-Talk, the unit's identification code is sent to the dispatcher.

Emergency Alarm w/Acknowledgement - Pressing the emergency button located on top of the radio sends out an Emergency Alarm, immediately alerting the dispatcher to an operator's emergency situation.

Provides an extra measure of safety for the Systems Saber user.

Voice Selective Call - Allows users to choose who they want to hear transmission. Receiving unit is alerted to call with two tones before the voice of the calling party is heard.

Voice Selective Call gives radio users a level of privacy by selecting who will receive message.

Status/Message - Sends in the current condition of the radio user via predetermined messages. Up to 8 different messages are supported.

An efficient way to manage your fleet and save valuable air time.

Radio Check - The dispatcher can remotely check, without alerting the portable operator, any SYSTEMS SABER radio to make sure that the radio is on.

CALL ALERT (Page) - When your radio receives a Call Alert from another radio, the portable will continue to emit a series of tones until reset.

You should never miss a call. If your radio is left unattended or you're working in a noisy environment, a series of audible tones will alert you that someone is trying to contact you.

CALL ALERT Encode/Decode (SYSTEMS SABER III only) - Allows a unit to initiate as well as receive a Call Alert signal. Message is sent via 3 x 5 keypad. SYSTEMS SABER III can store up to eight individuals in call list.

Encode/decode capability helps assure that important messages or instructions will get through directly from the portable.

Simple Status/Message (SYSTEMS SABER III only) - Users can replace verbal status updates or routine calls such as "On scene," "En route" or "At lunch" by the touch of a button. New status appears automatically on the supervisor's/dispatcher's console or terminal. Less frequent messages can also be sent via 3x5 keypad.

Routine status changes are made easily, allowing each user to concentrate on the job at hand. Efficiency on the job is increased by supervisors/dispatchers being able to identify which operator is in the best position to respond to an incident.

Voice Selective Call Decode/Encode (SYSTEMS SABER III only) - Allows unit user to send a Selective Call to any radio in the system.

Provides supervisory capability to a radio located anywhere in the system.

Advanced STAT-ALERT Features/ADVANTAGES

Selective Radio Inhibit - The dispatcher can remotely disable any SYSTEMS SABER radio (i.e.; the radio seems inoperable). Disabling the portable will prevent the unit from being operated.

If a SYSTEMS SABER portable should happen to be stolen, selectively inhibiting the radio will prevent your system from being compromised.

Repeater Access - SYSTEMS SABER radios can selectively access up to 8 different repeaters (slaved only). Additionally the 2 side buttons can be used to selectively address 2 more repeaters without using PL/DPL. STAT-ALERT repeater access is especially useful with SECURENET operation, when PL/DPL cannot be used.

Multi system access makes the SYSTEMS SABER portable that much more versatile.

Remote Monitor - During emergency situations the dispatcher can monitor voice conversations from the SYSTEMS SABER portable, thus gathering additional information about the activities surrounding the radio operator.

Increases dispatcher's awareness of situation at the scene, when the portable operator is unable to press the push-to-talk switch.

Emergency Call w/Acknowledgement - Pressing the emergency button located on top of the radio sends out an Emergency Alarm. In addition to alerting the dispatcher, as with an Emergency Alarm, a system in which all subscribers are equipped with Emergency Call allows temporary priority access to the channel. Optionally, the SYSTEMS SABER can automatically be remotely monitored after the Emergency Call is sent.

SECURENET System and Security Features/ADVANTAGES

The capability of clear or coded voice transmission in the same radio allows for easy system integration. SECURENET Capable radios give you the flexibility of adding voice security to your system as it becomes a requirement. SECURENET radios can be ruggedized.

Using Secure capable radios gives you the flexibility to later add encryption to your system without having to replace all portables.

Coded/Clear Selector Operation - The coded/clear switch on

Technological Features/ADVANTAGES

Microcomputer Control - SYSTEMS SABER utilizes an advanced microcomputer, the Motorola MC68HC11, along with Custom Integrated Circuits to provide a small, high electrical specifications and reliable radio. The MC68HC11 provides the radio's mode slaved features (i.e. power levels, PL/DPL codes, Unit ID, Scan Lists, etc.), easy tuning and testing and programmability. The Integrated Circuit chips add to the high electrical specifications, aids in a fast locking synthesizer and provides enhanced audio intelligibility in noisy environments.

While reducing radio size through software control, the MC68HC11 and Custom Integrated Circuits improves radio performance by eliminating internal wires.

Enhanced Audio - A custom designed Audio Filter IC and microcomputer makes SYSTEMS SABER's audio one of Motorola's loudest and most intelligible.

SYSTEMS SABER's microcomputer aided acoustic system reduces distortion, which means improved voice intelligibility, at high volumes. A definite advantage of optimized performance plus the highest SPL in this size housing ever made by Motorola.

Synthesized - Multiple Mode Capability - An advanced, Motorola designed synthesizer provides a capacity for up to 225 (16 on SYSTEMS SABER I) modes (trunked talkgroups/conventional channels) of operation.

This multi-mode capability is flexible enough to satisfy system requirements that range from basic to complex.

Battery Saver - The advanced microcomputer is able to temporarily "shut-off" non-required radio components during periods of non-activity. The radio continues to monitor and operate, but at a level that reduces battery current drain and increases hours of operation.

Improved current drain management can only mean increased hours of operation and additional battery life.

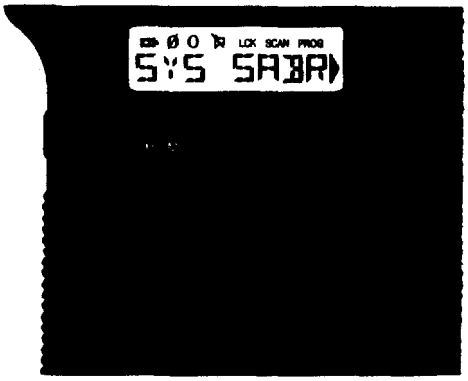
SYSTEMS SABER Radio Features/ADVANTAGES

Dual Mode Operation - All SYSTEMS SABER radios are designed to operate in both UHF and VHF trunked and UHF and VHF conventional systems. Up to 225 modes on SYSTEMS SABER III or 16 modes on SYSTEMS SABER I can be used to access any combination of trunked or conventional modes.

Dual Mode Operation allows communications in both trunked and conventional systems.

Scan Operation - SYSTEMS SABER offers you the most advanced scan capability ever offered in a two-way portable radio. The conventional Scan menu includes: 16 slaveable scan lists with up to 2 priority and 14 non-priority channels each, nuisance channel delete and a predetermined transmit channel per scan list. The 3 x 5 keypad on SYSTEMS SABER III gives you the ability to create your own unique scan list. The trunked Scan menu includes: non-priority trunked talkgroup scan, Priority Monitor and 16 trunked scan lists with up to 16 talkgroups.

SYSTEMS SABER III's keypad has the added feature of "one button" scan on/off.



3 x 5 Button Keypad (SYSTEMS SABER III only) - The SYSTEMS SABER III keypad consists of 15 buttons, all of which have control over certain features and/or functions. The SYSTEMS SABER III radio utilizes the "Unipress" or single button method of feature operation. By separating particular functions under different keys it makes it simpler for the user to initiate a desired radio feature. Any feature is just a few keystrokes away.

Many of the SYSTEMS SABER III radio features require a single key press.

Zone and Talkgroup Operation (SYSTEMS SABER III only) - The MODE button, in conjunction with the channel/talkgroup selector switch, provides the means to select up to 225 modes. It serves as a frequency management function by allowing you to segment channels into many different groups.

With multiple mode operation you can partition channels into different departments, precincts, fleet groups or systems. All 225 modes are accessible via 16 zones and the 16 position channel/talkgroup selector switch.

Mode Select Operation - Mode Select operation is a major feature of all SYSTEMS SABER radios. A "mode" is a list of characteristics or functions performed on a talkgroup or channel. With Mode Select operation, popular auxiliary functions can be "slaved" to the talkgroup/channel selector switch, thus eliminating separate controls and switches. The microcomputer 'reads' the "slaved" information from the reprogrammable EEPROM. Mode Select Operation enables you to simultaneously select:

- Dual Mode (Trunked/Conventional operation)
- PRIVATE-LINE, DIGITAL PRIVATE-LINE or Carrier Squelch
- Time-out timer
- Transmit Power Level
- Identification codes
- Scan Lists
- Trunked Systems Information
- Encryption

Mode Select simplifies radio operation similar to color TV's "one button tuning." The radio operator has only one switch to control, making operation quicker and less confusing.

Submersible Models (SYSTEMS SABER I only) - Certain SYSTEMS SABER I models are fully submersible in up to three feet of **fresh water** for two hours. These models pass MIL-STD 810 C & D, Method 512.2, Procedure I for immersion.

Submersibility provides much more stringent environmental performance.

Telephone Interconnect (SYSTEMS SABER III only) - Allows you the ability of making telephone calls in either a trunked or conventional system.

Radio Lock (SYSTEMS SABER III only) - Radio Lock gives you the ability to completely disable your SYSTEMS SABER III (all menus, transmit and receive functions) every time you turn it off.

SYSTEMS SABER Radio Features/ADVANTAGES continued

Secure your SYSTEMS SABER III radio against unauthorized use. Only the entry of your own personal password will permit radio use, once it has been turned on.

Password Menu (SYSTEMS SABER III only) - A standard offering with Radio Lock. The Password Menu allows you to create and change the numeric password that unlocks the radio.

Change your password as often as you like directly from the radio's keypad.

Mute Key (SYSTEMS SABER III only) - The MUTE key allows you to turn the audible keypad tones on and off by a single key press.

A must in any of your surveillance applications.

Liquid Crystal Display (LCD) Alpha Naming (SYSTEMS SABER III only) - The 8 character, alphanumeric display on the SYSTEMS SABER III is used to display channel/talkgroup and feature information. The display can also be illuminated for night use.

Provides continuous visual confirmation of radio's operating mode.

Battery Status Indicator (SYSTEMS SABER III only) - The battery symbol will begin to flash when the battery's charge is low.

You no longer need to guess about the state of charge of your battery.

Programmable Time-out Timer - The transmission time can be automatically terminated after a preprogrammed time. An audible tone is sent to the operator prior to termination to alert him/her. After dekeying the operator can key-up again for the next transmission.

Prevents prolonged transmitter keying which can tie up a repeater or channel and limit access for all users in the system.

Variable RF Power - Transmit power output is variable on a per channel or talkgroup basis, from 2 to 5 watts on UHF high power models, and from 2.5 to 6 watts on VHF high power models.

Variable power levels help to manage your system better and give you lower battery consumption.

Multi-function LED - A top mounted, multi-function, dual color (red/green) LED illuminates to indicate transmission, low battery (SYSTEM SABER I), channel busy, Private Conversation or Call Alert reception.

In the transmit mode, the LED will illuminate to indicate RF power is being generated. During PTT depression, the LED will flash to indicate low battery status. Optionally, in the receive mode, the LED can be lit to indicate that a channel is busy. A blinking, green LED indicates that a Private Conversation or Call Alert has been received.

Squelch - Three types of squelch are available in the SYSTEMS SABER, PRIVATE-LINE, DIGITAL PRIVATE-LINE and carrier. The SYSTEMS SABER microcomputer permits all three squelch codes in one radio and gives the user the flexibility to assign different codes to each channel. Also, transmit codes may be assigned differently from receive codes.

Transmit and Receive Channel Separation - In UHF band, transmit and receive frequencies can be separated by up to 30 MHz with full RF performance. In VHF/High band, transmit and receive frequencies can be separated by up to 26 MHz, with power degradation to 5 watts, on high power models.

With wide range frequency capability, a variety of different interagency, repeater and talkaround channels can be incorporated into one radio.

Universal Connector - The universal connector on SYSTEMS SABER radios serves as interface for various audio accessories and tuning and programming cables.

The SYSTEMS SABER radio never needs to be disassembled for tuning, testing or programming. Allows for the use of your SABER accessories.

Mechanical and Ergonomic Features/ADVANTAGES

Environmental Specifications - The SYSTEMS SABER radio is ALT tested; the unique Motorola Accelerated Life Test which simulates five years of field stress in two months. SYSTEMS SABER also meets the same stringent U.S. Military Standards, 810C, 810D and 810E as the SABER. The U.S. Military Standards 810C, 810D and 810E were created by the U.S. Department of Defense and are considered to be the most rigorous for radio equipment.

The SYSTEMS SABER meets military standards for shock, vibration, temperature, low pressure, dust and solar radiation. The SYSTEMS SABER design team designed out known failure modes, designed in ruggedness and verified the process with the ALT, MIL-STD. 810 C, D and E and EIA RS-316-B.

Mechanical Integrity - SYSTEMS SABER maintains the same high standard of mechanical integrity established by SABER's contoured, one piece, molded Makroblend* housing.

The solid construction and rugged mechanical integrity of the SYSTEMS SABER radio will assure dependable communications in all weather and will withstand rough handling and accidental drops.

*Makroblend - A polycarbonate/polyester blend that was developed especially for the SABER radio and now used on SYSTEMS SABER radios.

SYSTEMS SABER Portable Radio

Performance Specifications / General

	SYSTEMS SABER Model	
Model Series:	H99QX & (104H, 108H, 099H)	H99QX & (102H, 106H, 080H)
Frequency:	136-174 MHz	403-433 MHz, 440-512 MHz
Power Supply:	One rechargeable nickel-cadmium battery or disposable lithium battery	
Dimensions (H x W x D):		
Less Battery:	4.42" x 2.64"/2.94" x 1.18" (112.26 mm x 67.05/74.67 mm x 29.97 mm)	
with Medium Capacity:	7.56" x 2.94" x 1.18" (192.01 mm x 74.67 mm x 29.97 mm)	
with Ultra High Capacity:	8.32" x 2.94" x 1.18" (211.31 mm x 74.67 mm x 29.97 mm)	
with Ultra High Capacity Ruggedized Option Only:	8.37" x 2.94" x 1.18" (212.6 mm x 74.67 mm x 29.97 mm)	
with Disposable Lithium:	7.12" x 2.94" x 1.18" (180.85 mm x 74.67 mm x 29.97 mm)	
Note:	(2.64" represents width at PTT/ 2.94" represents width at Top)	
Weight:		
Less Battery:	12.57 oz. (359 g)	
with Medium Capacity:	24.32 oz. (695 g)	
with Ultra High Capacity:	26.39 oz. (754 g)	
with Ultra High Capacity for Ruggedized Option Only: [1]	29.64 oz. (840 g)	
with Lithium Battery:	18.37 oz. (525 g)	

[1] This battery available with Ruggedized Option only.

Transmitter

	VHF	UHF
RF Power (@ 7.5V) H43 and H44 Models:	2.5-6 W	2-5 W
Frequency Stability: -30° to +60°C, +25°C Ref.:	±0.0005% 0.0002% (OPT)	±0.0002%
Modulation:	20K0F1E, 16K0F3E, 16K0F1D, 15K0F2D	
FM Hum and Noise: (Companion Receiver):	-45 dB	-45 dB
Audio Response: (6 dB/octave pre-emphasis from 300 to 3000 Hz)	Exceeds EIA Requirements +1, -3 dB	
Audio Distortion: (@1000 Hz, 3 kHz deviation)	≤ 3%	≤ 3%
Spurious Harmonics: H43 and H44 Models:	6 W -75 dB*	
H44 Model:		5 W -74 dB
Frequency Separation: no degradations)	136-150.8 MHz (15 MHz) 146-162 MHz (16 MHz) 157-174 MHz (17 MHz) 148-174 MHz** (26 MHz)	403-433 MHz 440-470 MHz 460-490 MHz 482-512 MHz (30 MHz)

*-61 dB for H43 models set to the 2.5 W power level.
**5 W power level maximum

Receiver

	VHF	UHF
Channel Spacing:	30kHz (25kHz Int'l.)	25 kHz
Sensitivity:		
20 dB Quieting:	.45 uV	.40 uV
12 dB SINAD:	.35 uV	.35 uV
Squelch:	Programmable	Programmable
Selectivity:		
Adjacent Channel:	-80 dB	-75 dB
Fourth Channel:	-90 dB	-80 dB
Intermodulation:	-78 dB	-72 dB
Frequency Stability: -30°C to +60°C, +25°C Ref.:	±0.0005% 0.0002% (OPT)	±0.0002%
Frequency Separation: (no degradation)	136-150.8 MHz (15 MHz) 146-162 MHz (16 MHz) 157-174 MHz (17 MHz) 148-174 MHz*** (26 MHz)	403-433 MHz 440-470 MHz 460-490 MHz 482-512 MHz (30 MHz)
Rated Audio Output: (@ ≤ 5% electrical distortion)	500 mW	500 mW
Nominal SPL: (@ Rated Audio & 30 cm weighted, 300-3000 Hz)	90 dB	90 dB
SPL: (with Audio at 700 Hz, ≤ 10% distortion, and audio processing filter	94 dB	94 dB

***5 W power level maximum

Note: Ruggedized Option applies to non-display model only.

FCC Designations

	VHF	UHF
Securenet Capable Models:	AZ489FT3764	AZ489FT4767-5W

Batteries for "SYSTEMS SABER" Radio

Battery Capacity/Type	Dimensions (H x W x D)
Medium	3.14" x 2.94" x 1.18"
Ultra High	3.90" x 2.94" x 1.18"
Ultra High Ruggedized Battery	3.77" x 2.94" x 1.18"
Disposable Lithium*	2.70" x 2.94" x 1.18"

*Disposable lithium operating temperature range is +5 to +60°C. Typical life @ 5/5/90 duty cycle, 25°C, rated audio, and 2.5 W power output, is 12 hrs

Applicable Military Standard 810C, 810D & 810E Mechanical Specifications

Standard	U.S. Military Spec 810D Method/ Procedure	U.S. Military Spec 810C Method/ Procedure	U.S. Military Spec 810E Method Procedure
Low Pressure	500.2/I	500.1/I	500.3/I
High Temperature (Storage)	501.2/I Category A1 (Induced)	501.1/I	501.3/I Category A1 (Induced)
High Temperature (Operational)	501.2/II Category A2 (Induced)	501.1/II	501.3/II Category A2 (Induced)
Low Temperature	502.2/I Category C1 (Induced)	502.1/I	502.3/I Category C1 (Induced)
Temperature Shock	503.2/I Category A1 - C1 (Induced)	503.1/I	503.3/I Category A1 - C1 (Induced)
Solar Radiation	505.2/I Figure 505.2-1	505.1/I	505.3 Figure 505.3-1
Rain	506.2/I & II	506.2/I & II	506.3/I & II
Humidity	507.2/II (Cycle-5)	507.1/II	507.3/II (Cycle-5)
Salt Fog	509.2/I	509.1/I	509.3/I
Dust	510.2/I	510.1/I	510.3/I
Leakage (Immersion)	512.2/I*	512.1/I*	512.3/I*
Vibration	514.3/I Category X	514.2/VIII & X	514.4/I Category X
Shock	516.3/I & IV	516.2/I, II & V	516.4/I & IV

*Applicable to Submersible and Ruggedized Model: Slight audio degradation (-2 dB) may exist

Security

Encryption Type:	Digital
Coding Method:	Multi-register non-linear combiner
Number of Codes:	Dependent on encryption options
Synchronization:	Self synchronizing or counter addressing
Code Key Initialization:	Internally derived pseudo-random initializing vector
Code Key:	External hand held microprocessor controlled key
Generation Code Storage:	Variable loader Volatile electronic memory
Analog to Digital Conversion:	Continuously Variable Slope Delta Modulation (CVSD)
Voice Sample Rate:	12 K bit/Sec

MOTOROLA Communications

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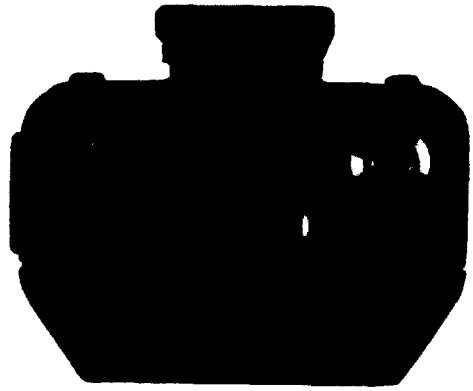
R3-4-136B

[redacted]

Features/Description

Internal MAN DOWN Switch – When the MAN DOWN radio is tilted more than 60° nominally an emergency transmission sequence is initiated. The emergency transmission sequence will be repeated until the radio is returned to an upright position.

MAN DOWN Delay Timer – The timer circuit is used to prevent false alarms due to normal body movements of the user. The delay period before the start of emergency transmit sequence can be set at 5, 10, 15, or 20 seconds. Standard MAN DOWN delay setting is 5 seconds.

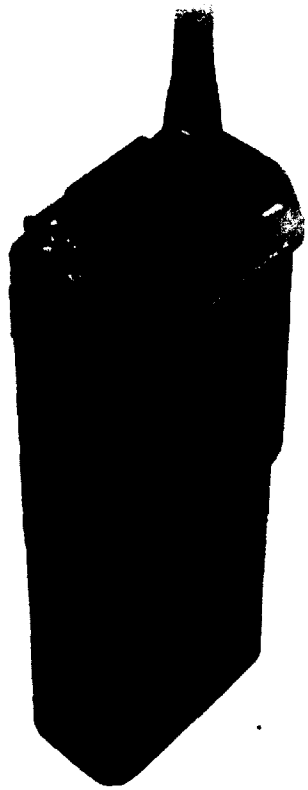


MDC600 and MDC1200 Signalling – The MAN DOWN radio is available with either MDC600 or Stat Alert (MDC1200) signalling operation. This feature provides a unique Identification code for each radio along with the ability to indicate emergency or normal operating condition.

Emergency Alarm Button – This button provides the user with the ability to quickly initiate an emergency transmission sequence with a simple button press.

Nickel-Cadmium rechargeable batteries (medium or high capacity) – are easy to change, slide on type that lock securely. Choices are available to optimize duty cycle and weight/size considerations.

Battery Status/Transmit/Busy Channel LED indications – The LED glows with a steady red light when the radio is transmitting, and with a blinking red light when the battery needs charging. The LED glows with a flashing green light when there is channel activity on a PL or DPL protected channel.



Unit ID & Emergency – Compatible with Motorola's Digital Communications Systems, this option provides automatic unit identification. Each radio can be programmed to send a unique ID code with each transmission, each emergency button press, or each MAN DOWN condition.

Field Programmable – The MAN DOWN Two Way Radio utilizes a reprogrammable EEPROM code plug, which permits most operating characteristics including frequencies within the specified subband, options and squelch codes to be changed or added without opening the radio. Programming is done via a programming cable interface to an IBM PCXT® or Laptop PC®.

QUIK CALL II Decode – The MAN DOWN radio, when placed in the QUIK CALL mode, will only receive messages preceeded by the individual radio's coded signal. When the correct signal is received an audible alert tone is generated to help assure that the user is aware of the transmission. After the alert tone the radio operates in the normal talk and listen mode until reset to the QUIK CALL mode. Long Tone B signalling allows both individual and group call in the same radio.

User Programmed Channel Scan – Allows the radio to scan up to eight channels that the user designates. The scan list can be easily programmed and revised by the user in the field. Enables monitoring of specific channels so no messages are missed.

Time-Out Timer – Transmission can be limited to a duration programmable from 1 to 255 seconds. The transmission is automatically terminated after the programmed interval and an audible alert tone is emitted to signal this condition to the operator. After de-keying the operator can again key-up for the next transmission.

Power Up Alert – The microcomputer performs an internal self-check and gives an alert tone to signal the user that the radio is working properly each time it is turned on.

PAC RT/PAC PL Operation – MAN DOWN models can interface with PAC RT or PAC PL vehicular repeaters. Repeater access enables portable communications that utilize the power of a mobile radio.

Microcomputer Controlled Synthesizer – The MAN DOWN Radio operating system consists of a microcomputer controlled network of uniquely designed Motorola integrated circuits, including its fast lock synthesizer. Many discrete parts such as multiple crystals and filters have been eliminated.

Features/Description

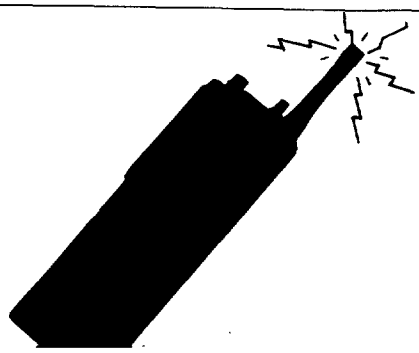
Battery Saver – The battery saver technology increases hours of operation between charges by reducing current drain. The advanced microcomputer is able to temporarily 'shut off' non required radio circuits during periods of inactivity.

Rugged Construction – The housing is constructed of highly durable, impact resistant, molded polycarbonate compound. Radial sealing with O-rings is utilized to provide extra resistance against dirt, dust and water intrusion.

Features/Usage

TYPICAL "MAN DOWN" SYSTEM OPERATION

UNIT 1 NORMAL OPERATION – The TWO-WAY MAN DOWN unit performs as a standard portable transceiver with MDC signalling capability. An individual Unit identification signal is transmitted each time the push to talk switch is depressed.



UNIT 2 INITIAL "MAN DOWN" CONDITION – When the radio is worn on the user's belt tilting of the radio or body nominally more than 60 degrees from the vertical position will trigger the emergency circuit and a series of MDC emergency & ID data packets will automatically be transmitted after the MAN DOWN delay timer has elapsed.

UNIT 3 EXTENDED "MAN DOWN" CONDITION – The emergency sequence will continue to transmit emergency packets for as long as the

2 WAY "MAN DOWN" FM Radio

Performance Specifications
All Specifications Are Per EIA RS 316B Procedures

Model Series:	P1757, P1758		P1759, P1760	
Frequency:	VHF		UHF	
Bandsplit (MHz):	(LO) 136-150.8; (MID) 146-162; (HI) 152.9-174		(LO) 403-433; (MID) 438-470; (HI) 470-500 or 488-512	
Power Supply:	One rechargeable nickel cadmium battery			
Dimensions: Less Antenna, Knobs & Battery H x W x D in Inches	3.90 x 2.63 x 1.76" (99 x 67 x 45mm)			
Battery Height/Wt.:	Height:	Weight:	Height:	Weight:
NI-Cd Batteries: Medium Capacity: High Capacity:	2.45" (62mm) 3.36" (85mm)	w/Radio 612g/21.6 oz. 684g/24.1 oz.	2.45" (62mm) 3.36" (35mm)	w/Radio 612g/21.6 oz. 684g/24.1 oz.
*Battery Life (Hrs):	High Power	Low Power	High Power	Low Power
NI-Cd Batteries: Medium Capacity: High Capacity:	5 hours 8 hours	8 hours 14 hours	5 hours 8 hours	8 hours 13 hours
Sealing:	O-ring design to withstand rain testing per Mil Std. 810C/D			
Shock & Vibration:	Impact resistant polycarbonate housing exceeding EIA RS-316B			
Dust & Humidity:	Weather resistant housing exceeding EIA RS-316B			

*5-5-90 Duty Cycle

Transmitter:	VHF	UHF
Frequency Separation (MHz):	Full Bandsplit	15
RF Output (W):	2 or 5	2 or 4 (HI 4 only)
Frequency Stability: -30° to +60°C; 25°C ref.	±.0005%	±.0005%
Modulation:	20KOF3E	20KOF3E
Spurious & Harmonics:	-60 dB	-53 dB
FM Noise: (Companion Receiver Method)	-45 dB	-45 dB
Audio Response: (From a 6 dB/octave pre-emphasis; 300 to 3000 Hz)	+1, -3 dB	+1, -3 dB
Audio Distortion: (@ 1000 Hz, 60% rated maximum deviation)	3%	3%
FCC Designation: Low Power High Power	AZ489FT3716 AZ489FT3717	AZ489FT4717 AZ489FT4718

*Constrained by Sub-Band Limitations.

Receiver:	VHF	UHF
Frequency Separation (MHz):	Full Bandsplit	8
Channel Spacing:	30 kHz (25 kHz int.)	25 kHz
Modulation Acceptance:	±7.5 kHz	±7.5 kHz
Sensitivity: 20 dB Quieting 12 dB Sinad (LO/MID) (HI) Squelch	.35µV .25µV .30µV .25µV	.50µV .35µV .35µV
Selectivity: (EIA Sinad)	-70 dB (-68 dB @ 25 kHz)	-70 dB
Intermodulation:	-70 dB (-68 dB @ 25 kHz)	-70 dB
Frequency Stability: (-30°C to +60°C; 25°C ref)	±.0005%	±.0005%
Spur Rejection: ½ IF (VHF HI only) Others	-65 dB -70 dB	— -70 dB
Image Rejection:	-70 dB	-70 dB
Audio Output: (* less than 5% distortion)	500 mW	500 mW
Useable Bandwidth:	6 KHz min.	6 KHz min.
FCC Designation: Low Power High Power	AZ489FT3716 AZ489FT3717	AZ489FT4717 AZ489FT4718

Applicable MIL-STD.	810C Methods/Procedures		810D Methods/Procedures	
Low Pressure	Method 500.1	Procedure 1	Method 500.2	Procedure 1
High Temperature	Method 501.1	Procedure 1, 2	Method 501.2	Procedure 1 & 2
Low Temperature	Method 502.1	Procedure 1	Method 502.2	Procedure 1 & 2
Temperature Shock	Method 503.1	Procedure 1	Method 503.2	Procedure 1
Solar Radiation	Method 505.1	Procedure 1	Method 505.2	Procedure 1
Rain	Method 506.1	Procedure 2	Method 506.2	Procedure 2
Humidity	Method 507.1	Procedure 2	Method 507.2	Procedure 2
Salt Fog	Method 509.1	Procedure 1	Method 509.2	Procedure 1
Dust	Method 510.1	Procedure 1	Method 510.2	Procedure 1
Vibration	Method 514.2	Procedure 8, 10	Method 514.3	Procedure 1
Shock	Method 516.2	Procedure 1, 2, 5	Method 516.3	Procedure 1, 4

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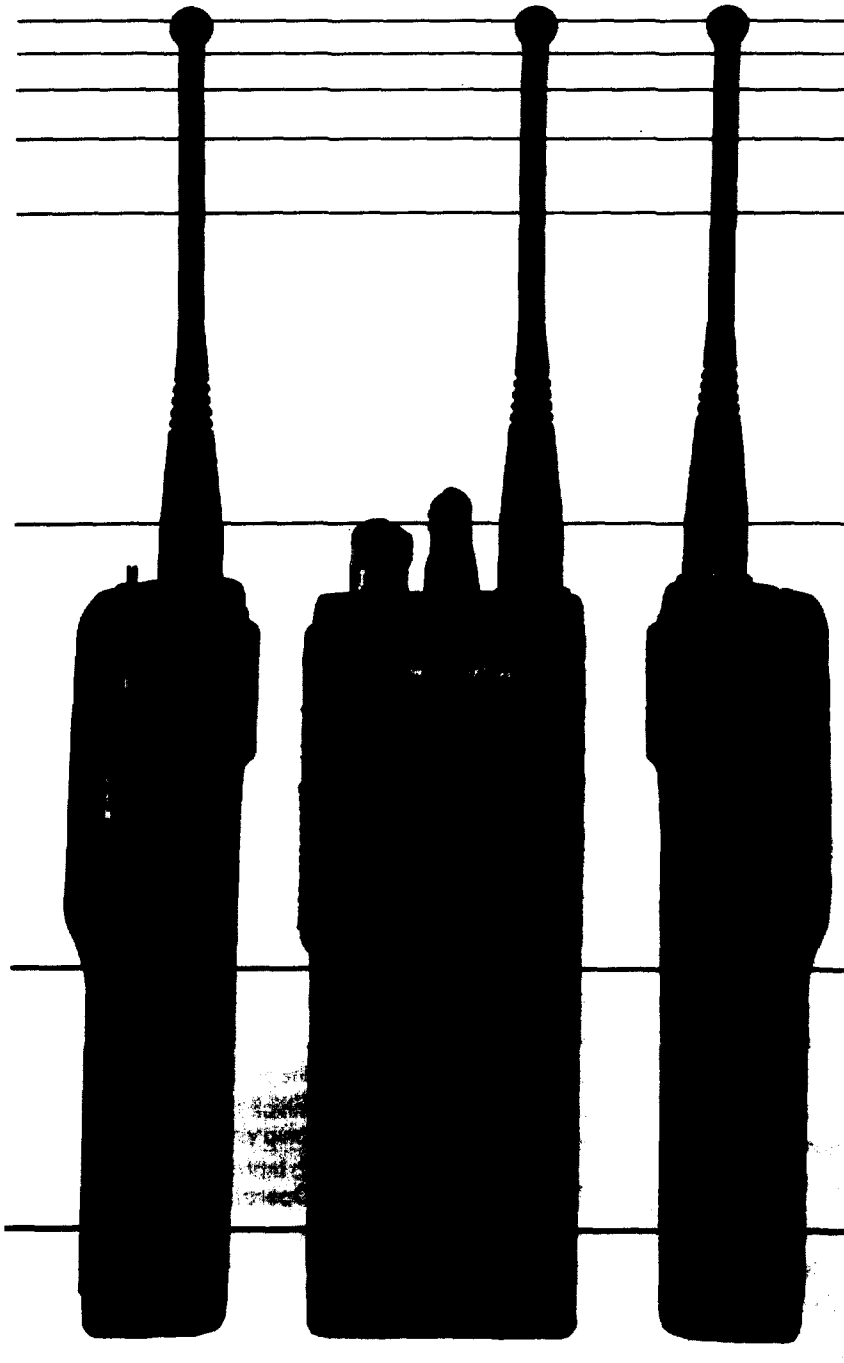
HT 1000

SYNTHESIZED FM PORTABLE RADIO



CREATING

NEW

HORIZONS

VHF • 5 to 1 Watts • 136 - 174 MHz
UHF • 4 to 1 Watts • 403 - 470 MHz
• 450 - 520 MHz

2 CHANNEL MODEL
8 CHANNEL MODEL
16 CHANNEL MODEL

The HT 1000 portable series offers you small, rugged, economically packaged radios loaded with features never before offered in a Motorola HT portable product. In addition to the size, durability, and affordability advantages the HT 1000 radio offers, it also includes programmable function controls and radio-to-radio cloning for increased user flexibility. Of course, the HT 1000 radio family incorporates the quality and reliability you have come to expect from Motorola—the leader in FM two-way radio communications.

MOTOROLA

[redacted]

Side-mounted, weather sealed universal connector

Coded Squelch Operation — Allows the user to operate a radio in Carrier Squelch, PL or DPL mode. All of these

the user receives a Selective Call, the radio will generate

HT 1000

SYNTHESIZED FM PORTABLE RADIO

Typical Performance Specifications (all specifications are per EIA 316B unless otherwise noted)

General	Model Number	Channels	Bandsplit	RF Pwr Output	Display / Keypad
VHF Models	H01KDC9AA1__N	2	136 - 174 MHz	1 to 5 Watts	None / Optional
	H01KDC9AA2__N	8	136 - 174 MHz	1 to 5 Watts	None / Optional
	H01KDC9AA3__N	16	136 - 174 MHz	1 to 5 Watts	None / Optional
UHF Models	H01RDC9AA1__N	2	403 - 470 MHz	1 to 4 Watts	None / Optional
	H01RDC9AA2__N	8	403 - 470 MHz	1 to 4 Watts	None / Optional
	H01RDC9AA3__N	16	403 - 470 MHz	1 to 4 Watts	None / Optional
	H01SDC9AA1__N	2	450 - 520 MHz	1 to 4 Watts	None / Optional
	H01SDC9AA2__N	8	450 - 520 MHz	1 to 4 Watts	None / Optional
	H01SDC9AA3__N	16	450 - 520 MHz	1 to 4 Watts	None / Optional

Power Supply	Provided through one rechargeable nickel cadmium battery.
Sealing	Withstands rain testing per Mil. Std. 810 C/D/E
Shock and Vibration	Protection provided via impact resistant housing exceeding EIA RS-316B and Mil. Std. 810 C/D/E
Dust and Humidity	Protection provided via weather resistant housing exceeding EIA RS-316B and Mil. Std. 810 C/D/E

Radio Dimensions		Radio Weight	
Radio Only:	6.30" (H) x 2.34" (W) x 1.49" (D)	**Radio Only:**	10.2 oz.
With Medium Capacity Battery:	6.30" (H) x 2.34" (W) x 1.49" (D)	**With Medium Capacity Battery:**	16.9 oz.
With High Capacity Battery:	6.30" (H) x 2.34" (W) x 1.49" (D)	**With High Capacity Battery:**	18.3 oz.
With Ultra High Capacity Battery:	6.30" (H) x 2.34" (W) x 1.54" (D)	**With Ultra High Capacity Battery:**	19.4 oz.

Dimensions Note: All depth and width dimensions reflect measurements taken at the widest points on the radio unit. They do not reflect every width and depth point on the radio.

Battery Life @ 5/5/90	VHF @ 5W	VHF @ 1W	UHF @ 4W	UHF @ 1W
Medium Capacity Battery:	4.0 Hours	5.0 Hours	4.0 Hours	5.0 Hours
High Capacity Battery:	8.0 Hours	11.0 Hours	8.0 Hours	11.0 Hours
Ultra High Capacity Battery:	9.0 Hours	12.0 Hours	9.0 Hours	12.0 Hours

Transmitter

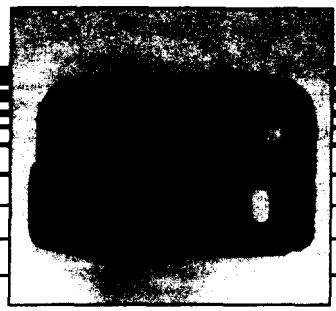
	VHF	UHF
Channel Spacing:	12.5 / 25 / 30 kHz	12.5 / 25 kHz
Frequency Separation: (MHz)	Full Bandsplit 136 - 174	403 - 470 & 450 - 520
FM Hum & Noise @ 12.5 kHz:	- 40 dB
@ 25 or 30 kHz:	- 45 dB	- 45 dB

Receiver

	VHF	UHF
Channel Spacing:	12.5 / 25 / 30 kHz	12.5 / 25 kHz
Frequency Separation: (MHz)	Full Bandsplit 136 - 174	403 - 470 & 450 - 520
Modulation Acceptance @ 12.5 kHz:	+/- 3.75 kHz
@ 25 or 30 kHz:	+/- 7.5 kHz	+/- 7.5 kHz

MT 2000

SYNTHESIZED FM PORTABLE RADIO



Easy access controls, A7 Model

Programmable buttons and switches

All MT 2000 radios include the following hardware configurations:

- **Belt Clip**
- **Antenna**
- **Side Mounted Monitor Button**
- **Two Programmable Side Mounted Buttons**
- **"Quick Disconnect" Accessory Port**
- **Rotary Channel Selector Knob**
- **Noise Canceling Microphone**
- **On / Off / Volume Knob**
- **One Programmable Top Button**
- **Back-lit Alphanumeric Display**
- **Dual Charge High Capacity Battery**
- **Top Mounted Bi-Color LED Indicator**
- **Weather-Sealed Universal Connector**
- **3-Position Programmable Toggle Switch**
- **15 Button Keypad (A7 model only)**
- **2-Position Programmable Switch**

GENERAL FEATURES:

Channel/Zone Operation — The MT 2000 portable features extensive channel and zoning capabilities in both of its models. The A4 model accommodates 48 channels through three zones of 16 channels each. Without zoning operation, the A4 model is capable of 16 channels selectable from the rotary selector knob. The A7 model has 160 channels available through 10 zones that each have 16 channels. The A7 model can also accommodate all of its 160 channels without zoning operation via channel selection from the standard 15 button keypad. If rotary only channel selection is desired on the A7, only 16 channels can be accessed without zone operation.

AlphaNumeric Display — Both MT 2000 models feature easy to read back-lit alphanumeric LCD displays which provide the user with instant channel and radio status information at a glance. The A4 model has a top mounted [illegible] character star-burst display, and the A7 model has a front mounted [illegible] character dot matrix display. The A4 top mount display is "operator flippable" so it can be read from the front, or while hanging from one's belt. All MT 2000 radios also feature easy to read radio function annunciators as part of the display windows to provide the user with vital radio indicators.

Mode and Zone Naming — Both MT 2000 models are field programmable for both mode and zone naming. Naming of modes and zones reduces the risk of a user being on an incorrect frequency setting because of cryptic or ambiguous nomenclature. A combination of mode and zone names can be six characters in length on the A4 top display model, and 14 characters in length on the A7 front display model.

Keypad Operation (A7 model only) — A set of 15 back-lit buttons constitutes the keypad on the front display A7 MT 2000 model. This keypad provides the user with additional access to the radio's features through the use of navigation buttons. With it, the radio's features can be viewed in a scrolling list three at a time, with all functions just one keystroke away. In fact, through the programming software, the user can determine the order in which those features that are most important to him appear in the scrolling order. That way, those most needed radio attributes can be accessed quickly and easily. A dedicated "home" button is available so a user can easily exit any function and return quickly to the last mode used. Additionally, in those situations where noise must be kept to a minimum, all keystroke tones can be easily muted by the operator.

Radio Lock (A7 model only) — This feature provides a means for the user to prevent unauthorized use of the radio upon power up. All user accessible functions will be disabled until the correct password is entered by the user after the radio is turned on. The radio lock password can even be modified by the user in the field.

Full Band Operation — The MT 2000 radio features Motorola's broadest band range. With "Full Band VHF," a single model can operate from 136 to 174 MHz—and with only two models, you'll cover the entire UHF band, as well.

Enhanced Audio — The MT 2000 radio is one of the loudest portables ever developed by Motorola. Improved voice intelligibility at high volumes means less distortion and fewer miscommunications. The radio's standard noise canceling microphone minimizes background noise.

Universal Connector — A weather-sealed connector allows all reprogramming, tuning and testing to be performed without opening the radio. The connector is multi-functional and allows quick connect and release of accessories.

Radio-to-Radio Cloning — Using a simple cloning cable you can duplicate one radio's operating parameters into another MT 2000 portable of the same model configuration and sub-band.

Channel Scan Monitoring — Allows the radio to scan up to 16 lists of channels. Channel Scan is capable of scanning for PL, DPL, Carrier Squelch, and Stat-Alert Selective Call, and can be configured for Non-Priority or Single Priority operation. The MT 2000 radio also includes Talk-back scan and nuisance channel delete capability where the user can temporarily delete an unwanted active channel from the scan list by simply pressing a button.

Adjustable Power Levels (UHF & VHF only) — The MT 2000 portable can be programmed to adjust RF power levels automatically on a mode slaved basis, or manually through operation of a switch. Variable RF power level provides the capability of having up to two power levels in one radio, and of operating in high or low power on a per channel basis. The default power levels in VHF are 5 Watts (high) and 1 Watt (low), and in UHF are 4 Watts (high) and 1 Watt (low). The two power levels can be changed in the field by a service technician if other than the default settings are required.